

Change of Adolescent Behavior by Information Technology in Pekuwon village Juwana District, Pati

Joko Prasetyo^{1✉}, Hamdan Tri Atmaja² & Eko Handoyo²

¹ Universitas Islam Sultan Agung, Semarang, Indonesia

² Universitas Negeri Semarang, Indonesia

Article Info

History Articles

Received:
November 2018
Accepted:
December 2018
Published:
June 2019

Keywords:

*adolescent,
behavior,
information technology*

DOI

<https://doi.org/10.15294/jess.v8i1.28182>

Abstract

Modern information technology with various types and forms and facilities has been developed in many urban and rural areas. The tendency of adolescents to imitate the various information that can be obtained from technology. The purpose of this study is to describe: (1) utilization of information technology by youth Pekuwon village, Pati regency, (2) parental supervision on the use of information technology by adolescents in Pekuwon village, Pati Regency, (3) changes in adolescent behavior in connection with information technology in Pekuwon village. The location of this research is Pekuwon village Juwana sub-district. This research uses a qualitative approach. The results of this study indicate that information technology in Pekuwon village trends are used for entertainment and support learning. There are 4 categories of families in providing youth supervision: (1) the family category that provides strict supervision, with an educated family background that cares for youth development, (2) the family categories that do not provide supervision (release) of adolescents with poor educated family background who are less concerned about adolescents, (3) the family category that provides supervision on certain things such as study time and prayer time, with educated family background that has been flexible in understanding the development of the times, (4) the family category that carries out supervision is an appeal, with the background as the village party who cares about adolescent development. Changes in adolescent behavior after the existence of information technology in Pekuwon village in the form of positive or negative behavior. The changes are categorized into three types, namely: shifts in cultural values, shifts in religious values, and asocial. This proves the truth of the theory of the arena-habitat of Piere Bourdieu.

© 2019 Universitas Negeri Semarang

✉ Correspondence address:

Kaligawe Raya No.KM, RW.4, Terboyo Kulon, Genuk,
Semarang, Jawa Tengah, 50112
E-mail: joko_prasetyo@yahoo.com

[p-ISSN 2252-6390](#)

[e-ISSN 2502-4442](#)

INTRODUCTION

Technology has an important role in human life. Utilization of technology has also penetrated in various fields, including the fields of health, education, agriculture, communication, politics, and others.

Like research conducted by Weise, Coulton, and Chiasson (2017) about illustrates on a case of organizing civic engagement in urban planning in information technologies.

Wolff, Darer, and Larsen (2015) mentioned that health information technology had been embraced as a strategy to facilitate patients to their health information and engagement in care. Traynor, Morrissey, Egan, and Mcguire (2016). Offer to design and to evaluate information and communication technology-based interventions for health professionals working in chronic pain services. Becker, Hernandez, Spirito, and Conrad (2017) trying to use technology to evaluate technology-assisted parenting intervention as a means of improving adolescent outcomes SUD.

Pipek, Liu, and Kerne (2014) explain crisis informatics views emergency management as a socio-technical system, in which information is disseminated within and among official and public channels and entities.

Al-Badi, Mahrouqi, and Ali (2016) put forward the provides a better understanding of the impact of the unrestricted Internet on young people and Omani teenagers' behavior in particular.

The use of technology in the field of information gives its benefits to the community, especially in the speed of receiving information. In the era of globalization as today's tech enthusiasts come from various circles ranging from children, adolescents, adults to the elderly.

The use of technology such as smartphones, computers, Gadget is not only applied in everyday life but also education. According to Kuswanto, and Walusfa (2017) Multimedia learning used in schools consisted of text, newspapers, graphics, photos, animations, video, alternative CD media, and sound. This opinion is also supported by Aryanto, Setyowati,

and Sugiyanto (2012), Rokhim, Banowati, and Setyowati (2017). From this learning result, the children are very skilled in using media.

In the teaching and learning activities of the media is also used as a form of innovation in the process, as described Astuti, and Setyawati (2016). Teacher of SM3T also applies some other media to engage students in the learning process.

Human beings are social beings, so they are not free to connect with other human beings. Media in the relation between humans with each other is communication. Along with the development of the times, led to the birth of the media of communication both in the form of mass media and electronic media. Mass communication is a process whereby the media make and disseminate information to the wider community. In other words, mass communication has a close attachment to the mass media. Mass media is a media that is specifically designed to reach a very broad society, whether in the form of newspapers, magazines, radio, television, HP, and the internet.

The rapid development of telecommunication technology, which has the quality of data processing faster, precise, accurate, small, cheap, effective, and efficient. The more new technology will be the more perfect facilities offered, so the update of the machine is more efficient and maximum in the facility. Fast and accurate information is made possible through the use of media with the right technology. Speaking of communication and media then will also talk communication. Media is technology and technology is media. Al-Badi, Mahrouqi, and Ali (2016) said the provides a better understanding of the impact of the unrestricted Internet on young people and Omani teenagers' behavior in particular.

Currently, modern information technology such as the internet, television, Facebook, BBM with various types and forms and facilities have been developed in many urban and rural areas. All circles have used it as a primary need. Although in principle information technology to support daily activities, the tendency of information technology used by teens to have a

negative impact on him. The tendency of teenagers to imitate the various information that can be obtained from the development of social media and electronic media.

Owens, Behun, Manning, and Reid (2012) said that adolescents who use pornography, especially that found on the Internet, have lower degrees of social integration, increases in conduct problems, higher levels of delinquent behavior, higher incidence of depressive symptoms, and decreased emotional bonding with caregivers.

In response to this, it is necessary to take an introspective attitude by various parties, both village government, community and parents towards the change of the social culture due to the development of social media and electronic media either individually or group, directly or indirectly. So that the family as the most dominant place of education, parents need to provide supervision and direction as a form of education in children in the formation of behavior that character.

Setiawati (2008) research concludes that mass communication has significant influence to the change of culture and behavior of society both mindset and life pattern of society which summarized in a behavior. Mass communication media has an important role in shaping national identity. Besides that, also has a role that can change the culture in society so that the values and norms in society sometimes deviated from the rules that have long been embedded and eventually become the nation's life view.

Muslim (2011) concludes that mass media as a technological development enables spontaneous emotional communication, ie the media with its presence creates a global community but also causes chaos and even threatens the normal life of the human culture.

Budhyati (2012) said internet media have a very influential role against juvenile delinquency and can lead to evil behavior (*Dursila*).

As the results of observations on pre-research on the behavior of adolescents who are members of youth in the Pekuwon village, Juwana district in the period 2011-2015 where positive activity is very supportive. However, along with the rapid technological developments,

the negative impacts began to appear as in early 2015 there was a brawl between the two Pekuwon village with Ketib village on dangdut event that eventually can be reconciled by the authorities. In early 2015 it was found out there was a teenage girl who was pregnant out of wedlock so married off by her parents in Religious Affairs office but was rejected because the pregnancy was five months old. This is assumed as a negative impact of the development of information technology that goes on the moral change of the culture of society, especially adolescents.

Based on the above background, this study aims to describe the utilization of information technology by Pekuwon village youth, parental supervision on the use of information technology by Pekuwon village adolescents, and analyzing changes in adolescent behavior of information technology impact in Pekuwon village, Pati.

METHODS

In this research used a qualitative approach. The reason used is qualitative approach because the researcher believes that truth or social reality is built by individual consciousness. The qualitative method used in this study is based on the theory of social action developed by the theoretical-arena theory of Pierre Bourdieu. The location of this research was conducted in Pekuwon village Juwana sub-district, Pati Regency, considering that Pekuwon village is one of the religious villages which is also marked by the graves of religious leaders but undergoing changing conditions in the technological era. Data collection techniques in this study using several methods, namely (1) in-depth interview, (2) observation, (3) documentary study. Interviews were conducted to adolescents, parents, community leaders and village government (village heads) in Pekuwon village, Pati. Observation is done directly to know the behavior change of adolescent by the existence of information technology. In this study, the document in question is the data of teenagers and parents who can help researchers to analyze the cultural

background of students in the form of student-adopted religion, parent's job, the number of adolescent parents.

RESULTS AND DISCUSSION

The rapid development of the present age has had a tremendous impact on the pattern of community life (youth). Information technology has made people's lives dynamic and fast. With the ease given, encouraging the community (teenager) to utilize information technology to assist in activities every day. The increasing demands of community activities (teenagers) have caused many technological tools to emerge on the market ranging from mobile phones to various brands, sophisticated types and features, laptop, netbook, iPod, tablet and so on.

Information technology is currently growing rapidly is the internet. The Internet is one of the technologies that provide ease in finding sources of information quickly by their needs.

The purpose of information technology is to solve problems, unlock creativity, and improve effectiveness and efficiency in doing the work. While the function of information technology there are six that is: (1) capture, (2) processing, generating, storage, retrieval, and transmission (Muslim, 2011).

Based on the results of these interviews, observation, and documentation shows that changes in the era of balance with the development of Information Technology in Pekuwon village, especially for teenagers.

Information technology in Pekuwon village is easy to obtain on average with TV, computing, and HP both for entertainment and to support work and study tasks. The primary purpose of the media of information technology using the internet is to find information in completing schoolwork, communication with family, and to support job information, either in the form of Twitter, Facebook, Instagram, and Browsing.

The use of Information Technology in Pekuwon village is diverse in motivation and encouragement, both internal and external.

Internal impulse can be an interest in teenagers with features in a variety of sophisticated telecommunication mediums. External drives can be environmental factors around which the majority use information technology, as well as the demands of school work and tasks more practical and efficient if using information technology.

This strongly supports research Sudibyo (2011) with the title Roles and Impacts of Information Technology in the World of Education in Indonesia. Impacts arising from the use of information and communication technology in the education sector include positive impacts and negative impacts. Positive impacts include: (a) the information needed will be faster and more accessible for educational purposes, (b) innovation in learning progresses with e-learning innovations that facilitate the educational process, (c) advances in information and communication technology will also enable the development of classes virtual or teleconference-based classes that do not require educators and learners to be in one room, (d) the administrative system of an educational institution will be easier and smoother because of the application of this information technology system.

Halim (2015) said internet networks have significant influence in shaping the mindset of adolescents; the media internet also determine and develop their understanding of the information they receive. Information media do not easily drive teenagers who have good and tough personalities, but they can define their views and understanding of the information they receive.

Models of communication tools as information technology by teenagers follow various models available. Information technology is in the form of HP, Ipad, Gadget, and Tabled. The usage of HP and Ipad is high enough, where most teenagers can use HP usually after school from night until night because sometimes it is used to find lesson information.

The community, especially the teenagers in Pekuwon village have been able to use Information technology anytime, because the

signal is good with the installation of several towers close, so that no longer feel difficulty, but the relatively affordable price pulse supports it, let alone there is one free hotspot facility as free area using the internet. This is supported by facilities of infrastructure and environmental condition and telecommunication network in Pekuwon village. Starch, making ease of teenagers in using information technology in various areas, both inside and outside the home.

In general, the tendency of information technology used by adolescents in the village Pekuwon is in the form of HP, Tabled, and Ipad. This is because of the ease of getting the HP adolescents that are currently circulating in the area Pati. Also, HP's price is very affordable by various circles with the economic level of people in Pekuwon village. Information technology used by teenagers is generally used for entertainment, although some of the teenagers can also take advantage to support the learning process.

Based on research Ameliola, and Nugraha (2010) which shows that in optimizing the potential of children needed parental participation in their daily life for the development and improvement of his personality. The development of the child's parent role is very important early on, especially in fostering, guiding and supervising the child in the use of information and technology media in a focused and integrated.

So in this study, parental supervision of the existence of information technology for adolescent behavior change there are some criteria of information technology allowed by parents used teenagers in Pekuwon village. Parents allow the use of Information Technology that is not harmful to children (teenagers) such as HP, TV, Tabled, and Ipad because in addition to the affordable cost is also not dangerous for the physical child (adolescent).

As a form of parental responsibility and attention, there is parental supervision of the child in connection with the development of information technology, parents always monitor all forms of activities, and know groups of friends on the move, including parents, restrict teenagers in the use of information technology, especially

study time and *Salat* time. To support this, there is a need for cooperation between the village government and the parents (the community) in monitoring children (adolescents) in the use of information technology media. Parents organize childhood time (teenagers) in the use of information technology so as not to interfere with the main activities (learning), but to support the ease of obtaining information lessons so that the time allowed is a time other than school hours and at home.

This is reinforced by Sudiby (2011) research titled Roles and Impacts of Information Technology in the World of Education in Indonesia. Some efforts to overcome the negative impact of the use of information technology in the education world by (a) the optimal use of information and communication technology but without eliminating ethics, (b) the government should be sensitive in filtering/filtering information accessible to learners, (c) including the establishment of a cyber task tasked to define standards of control operations in the application of information technology, including technological security, data recap system, and disaster management center functions, (d) avoid the use of advanced mobile phones by minors and older keep an eye on its usage. There is a prohibition of time of use and prohibition of material obtained from HP and Ipad as one of the media information.

Prohibition of usage time such as misuse of learning hours to play HP and Ipad, the prohibition of material obtained from HP and Ipad as pornographic and has nothing to do with school or work material. Parents monitor the use of HP and Ipad as Information Technology for children (adolescents) in Pekuwon village, whether monitoring time of use, type of information accessed, and intensity of use. So parents provide supervision of their children (teens) in the use of communication tools in information technology in the hope that children can be well-directed and controlled. In case of abuse using HP and Ipad, not in time then there are sanctions from parents, in the form of withdrawal of HP and Ipad for a few days even

up to 1 week or more, as well as reduction of allowance for students.

As a form of attention and responsibility, the parents also have the duty and responsibility to educate and nurture their children to the right and proper way, both formally and non-formally. Parents directed that the use of Information Technology for things that are useful especially for supporting school work, and also for entertainment as a form of refreshing. This is by research Ahn (2011) *The Effect of Social Network Sites on Adolescents' Social and Academic Development: Current Theories and Controversies* which shows that children's learning environment needs special attention by parents, communities, and teachers because of the use of technology in all types of life. Teachers and parents should work together to monitor the technological impacts of child development at home and school. In general, the difference in the way parents provides supervision in adolescents is due to differences in the background of parents.

The first category, a family that provides strict supervision, usually from an educated family who is very concerned about the condition of adolescent development. The second category, families that do not provide supervision (release) of children (adolescents) in using information technology, usually from low-educated families who pay little attention to the fate of adolescents. The third category, the family that provides supervision on certain things such as study time and prayer time, is usually because the family background is from an educated, educated family that already understands the development of the times so that it can be flexible. The fourth category, the supervisory family, is only an appeal, usually because of the village authorities who give attention to the development of adolescents in general.

Among students (teenagers) about information technology such as the Internet is not foreign anymore. Information technology is a daily meal either accessed via internet cafe, personal computer, laptop, netbook, handphone or other tools. Social media such as twitter and facebook are very familiar in the world of students, meaning that internet technology has

been known by the students (teenagers). With the internet the students (teenagers) can search for lesson material, complete tasks, search for news, entertainment, online games, social networking or maybe access things that are not important. Many students (teenagers) do not think about how much money is spent accessing the internet, how much time is spent accessing the internet, not thinking about the effects too long in front of the computer.

Based on the results of interviews, observation and documentation show that the behavior of adolescents before the use of information technology entirely, passive, and still easy to be invited to gather in community activities such as youth and mosque activities and look comfortable with the local culture. While the behavior of adolescents after the use of Information Technology is entirely different, that is becoming more crowded and lifestyle changes imitating urban people, and the artists look less interested in the local culture that exists. There are striking differences in the behavior of adolescents before and after the use of Information Technology, especially on the etiquette and lifestyle that tend to imitate the style of others. This supports research Setyawati (2008) of *The Role of Mass Communication in Massive Changes and Behavior of Society*. The results showed that information technology in the form of mass communication has a significant influence on cultural changes and behavior both the mindset and lifestyle of society contained in a behavior.

There are differences in the behavior of children before and after the use of Information Technology, especially on manners (upload-upload). Previously more often use the language krama, shifted by using the Indonesian language, although still with a subtle language, and adherence to parents declined. There are also differences in the behavior of children before and after the use of Information Technology. Changes in behavior (positive) in the form of a change from a lack of confidence (passive) to be more confident. While the change (negative value) in the form of changes in the tendency of adolescents now more use of Indonesian

language than the local language (*krama*), changes in dress styles have been many who imitate the artist and western style that is sometimes considered less fit with the clothing model of Pekuwon villagers.

Changes in adolescent behavior among teenagers before the use of Information Technology prefer to gather in various activities with a local attitude. After the use of Information Technology rather difficult to gather in some community activities are more likely to behave individually, and improve the association of teenagers who sometimes leads to the less good (negative changes). While the behavior change (positive) in the form of ease in communicating for some activities.

Changes in adolescent behavior (negative) in the form of more fun toys HP/Ipad so less focus on the lesson. Changes in adolescent behavior (positive) in the form of information technology media allows children (adolescents) to complete school tasks and improve achievement in school, and child achievement increases with the internet and other media information media. This is in line with the research of Susena, and Lestari (2014) entitled *Dampak Penggunaan Internet Terhadap Kecerdasan Pelajar Sekolah Menengah Atas (SMA) di Daerah Pedesaan Dalam Rangka Peningkatan Kualitas Pendidikan di Daerah Pedesaan*, which shows that the value obtained by respondents after the respondent is suggested to find the subject matter through the internet better value than before it is advised to look for subject matter on the internet.

Schools that utilize internet networks to support higher value learning than schools that have not used the internet as learning supporters. Thus, based on the above data researchers can conclude that by utilizing the Internet network can improve students' intelligence, and the Internet network in rural areas can improve the quality of education in rural areas.

In general, there is a change in adolescent behavior after the existence of information technology in Pekuwon village both positive and negative, because it caused adolescence to get information from HP so that influence its behavior. Based on the findings and the results of

the researcher's analysis of changes in adolescent behavior by the existence of information technology proves the truth of the theory of the habitus - the arena of Piere Bourdieu. That is, HP and the like as a medium of information technology in Pekuwon village make lifestyle changes and tastes of the teenagers to be different, both positive and negative.

CONCLUSION

Based on the results of research and discussion above, it can be concluded as follows: In general, information technology used by adolescents in the village Pekuwon HP, Tabled and Ipad. Information technology used by teenagers tends to be used for entertainment (Twitter, Facebook, Instagram, and Browsing), and also to support the learning process.

There are 4 categories of families in providing youth supervision: (1) a family category that provides strict supervision, with a background of educated families who are concerned about teenage development, (2) family categories that do not provide supervision (release) of adolescents with poor educated family background who are less concerned about adolescents, (3) family category that provides supervision on certain things such as study time and prayer time, with educated family background that has been flexible in understanding the development of the times, (4) the family category that carries out supervision is an appeal, with the background as the village party who cares about adolescent development.

Changes in adolescent behavior, after the existence of information technology in Pekuwon village in the form of positive or negative behavior. The changes are categorized into three types, namely: shifts in cultural values, shifts in religious values, and Asocial. This proves the truth of the theory of the arena-habitat of Piere Bourdieu.

REFERENCES

- Ahn, J. (2011). The Effect of Social Network Sites on Adolescents' Social and Academic Development: Current Theories and Controversies. *Journal of The American Society for Information Science and Technology*, 62(8), 1435-1445. Retrieved from <https://onlinelibrary.wiley.com/doi/epdf/10.1002/asi.21540>
- Al-Badi, A. H., Mahrouqi, S. A., & Ali, O. (2016). The Influence of the Internet on Teenagers' Behaviour in Oman. *Journal of Internet Social Networking & Virtual Communities*, Vol. 2016. Retrieved from https://ibimapublishing.com/articles/JISNV_C/2016/171712/
- Ameliola, S., & Nugraha, H. D. (2010). Perkembangan Media Informasi dan Teknologi Terhadap Anak dalam Globalisasi. *Proceedings. 5th International Conference on Indonesia Studies: "Ethnicity and Globalization"*. Retrieved from <https://icssis.files.wordpress.com/2013/09/2013-02-29.pdf>
- Aryanto, Y., Setyowati, D. L., & Sugiyanto, R. (2012). Pengembangan CD Interaktif Degradasi Lingkungan sebagai Media dan Sumber Belajar Geografi Siswa Kelas XI IPS SMA Negeri 5 Purworejo Tahun Ajaran 2011/2012. *Edu Geography*, 1(2). Retrieved from <https://journal.unnes.ac.id/sju/index.php/edugeo/article/view/1583>
- Astuti, T. M. P., & Setyawati, D. L. (2016). The Role of The Participants of The Undergraduates Educating in The Region of Frontier Outermost and Disadvantaged (SM3T) Program in Creating Educational Innovation and Maximizing The Natural Resources Potentials of Ende Regency, East Nusa Tenggara Province. *Man in India*, 97(5), 279-288. Retrieved from <http://www.serialsjournals.com/serialjournalmanager/pdf/1494933052.pdf>
- Becker, S. J., Hernandez, L., Spirito, A., & Conrad, S. (2017). Technology-Assisted Intervention for Parents of Adolescents in Residential Substance Use Treatment: Protocol of An Open Trial and Pilot Randomized Trial. *Addiction Science & Clinical Practice*, 12(1). Retrieved from <https://ascjournal.biomedcentral.com/articles/10.1186/s13722-016-0067-4>
- Budhyati, A. M. Z. (2012). Pengaruh Internet terhadap Kenakalan Remaja. *Proceedings. Prosiding Seminar Nasional Aplikasi Sains & Teknologi (SNAST) Periode III*. pp. B-426-B434. Retrieved from http://www.academia.edu/15183453/pengaruh_internet_terhadap_kenakalan_remaja
- Dewi, A. P. (2014). Hubungan Kontrol Diri dengan Perilaku Seksual Pranikah pada Mahasiswa Universitas Negeri Semarang. *Developmental and Clinical Psychology*, 3(1), 13-18. Retrieved from <https://journal.unnes.ac.id/sju/index.php/dcp/article/view/4443>
- Halim, N. A. (2015). Penggunaan Media Internet di Kalangan Remaja untuk Mengembangkan Pemahaman Keislaman. *Jurnal Dakwah Risalah*, 26(3), 132-150. Retrieved from <http://ejournal.uin-suska.ac.id/index.php/risalah/article/view/1270>
- Kuswanto, J., & Walusfa, Y. (2017). Pengembangan Multimedia Pembelajaran pada Mata Pelajaran Teknologi Informasi dan Komunikasi Kelas VIII. *Innovative Journal of Curriculum and Educational Technology*, 6(2), 1-7. Retrieved from <https://journal.unnes.ac.id/sju/index.php/ujet/article/view/19335>
- Muslimin, M. (2011). Perkembangan Teknologi dalam Industri Media. *Jurnal Teknik Industri*, 12(1), 57-64. Retrieved from <http://ejournal.umm.ac.id/index.php/industri/article/view/655>
- Owens, E. W., Behun, R. J., Manning, J. C., & Reid, R. C. (2012). The Impact of Internet Pornography on Adolescents: A Review of the Research. *Sexual Addiction & Compulsivity*, 19, 99-122. Retrieved from https://www.researchgate.net/publication/239798839_The_Impact_of_Internet_Pornography_on_Adolescents_A_Review_of_the_Research
- Pipek, V., Liu, S. B., & Kerne, A. (2014). Crisis Informatics and Collaboration: A Brief Introduction. *Computer Supported Cooperative Work*, 23, 4-6. Retrieved from https://www.researchgate.net/publication/265514121_Crisis_Informatics_and_Collaboration_A_Brief_Introduction
- Rokhim, M., Banowati, E., & Setyowati, D. L. (2017). Pemanfaatan Situs Masjid Agung Demak sebagai Sumber Belajar Sejarah bagi Siswa SMA di Kabupaten Demak. *Journal of*

- Educational Social Studies*, 6(2), 111-119. Retrieved from <https://journal.unnes.ac.id/sju/index.php/jes/article/view/19786>
- Setiawati, Ira. (2008). Peran Komunikas Massa Dalam Perubahan Budaya dan Perilaku Masyarakat. (The Role of Mass Communication in Culture Change and Society Behaviour). *Fokus Ekonomi*, Vol. 3 (2), 44-55. Retrieved from <http://stiepena.ac.id/wp-content/uploads/2012/11/pena-fokus-vol-3-no-2-44-55.pdf>
- Sudiby, L. (2011). Peranan dan Dampak Teknologi Informasi dalam Dunia Pendidikan di Indonesia. *Widyatama*, 20(2). Retrieved from <http://ejournal.veteranbantara.ac.id/index.php/widyatama/article/view/113>
- Susena, E., & Lestari, D. A. (2014). Dampak Penggunaan Internet terhadap Kecerdasan Pelajar Sekolah Menengah Atas (SMA) di Daerah Pedesaan dalam Rangka Peningkatan Kualitas Pendidikan di Daerah Pedesaan. *Jurnal Sainstech Politeknik Indonusa Surakarta*, 1(2). Retrieved from <http://www.poltekindonusa.ac.id/wp-content/uploads/2016/05/vol-1-2-2014-dampak-penggunaan-internet-terhadap-kecerdasan-pelajar-edy-susena.pdf>
- Traynor, A., Morrissey, E., Egan, J., & Mcguire, B. (2016). The Effectiveness of Information and Communication Technology - Based Psychological Interventions for Paediatric Chronic Pain: Protocol for A Systematic Review, Meta-Analysis and Intervention Content Analysis. *Systematic Reviews*, 5(1), 1-10. Retrieved from <https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-016-0350-1>
- Weise, S., Coulton, P., & Chiasson, M. (2017). Designing in between Local Government and the Public – Using Institutional Analysis in Interventions on Civic Infrastructures. *Computer Supported Cooperative Work (CSCW)*, 26(4-6), 927-958. Retrieved from https://www.researchgate.net/publication/316046205_Designing_in_between_Local_Government_and_the_Public_-_Using_Institutional_Analysis_in_Interventions_on_Civic_Infrastructures
- Wolff, J. F., Darer, J. D., & Larsen, K. L. (2015). Family Caregivers and Consumer Health Information Technology. *Journal of General Internal Medicine*, 31(1), 117-121. Retrieved from <https://link.springer.com/article/10.1007%2Fs11606-015-3494-0>